We Claim:

1. A method of fabricating an inkjet printhead chip having a substrate that incorporates drive circuitry, a plurality of nozzle arrangements that are positioned on the substrate, each nozzle arrangement having a nozzle chamber wall and a roof wall positioned on the substrate to define a nozzle chamber, the roof wall defining an ink ejection port in fluid communication with the nozzle chamber, an ink ejection member that is positioned in the nozzle chamber and is displaceable towards and away from the ink ejection port to eject ink from the ink ejection port and an elongate actuator that is fast, at one end, to the substrate to receive an electrical signal from the drive circuitry and fast, at an opposite end, with the ink ejection member, the actuator incorporating a heating circuit that is connected to the drive circuitry layer, the heating circuit being positioned and configured so that, on receipt of, and termination of, a suitable electrical drive signal from the drive circuitry layer, the heating circuit serves to generate differential thermal expansion and contraction, respectively, such that the actuator is displaced to drive the ink ejection member towards and away from the ink ejection port, the method comprising the steps of:

fabricating drive circuitry layers on the substrate with a CMOS fabrication process;

depositing a first sacrificial layer on the substrate;

depositing a heater layer for the heating circuits on the first sacrificial layer and etching the heater layer to form the heating circuits;

depositing a resiliently flexible layer of dielectric material on the substrate to cover the heater layer and etching the dielectric layer to form the actuators and the ink ejection members;

depositing a second sacrificial layer on the substrate to cover the actuators and the ink ejection members and etching the sacrificial layer to define deposition zones for the nozzle chamber walls and the roof walls;

depositing a layer of a structural material on the second sacrificial layer to form the nozzle chamber walls and the roof walls; and

etching away the sacrificial layers.

2. A method as claimed in claim 1, which includes the step of depositing a bend compensation layer on the dielectric layer such that the deposition characteristics of the bend compensation layer are substantially the same as those of the heater layer, the bend

compensation layer being of the same material as the heater layer.

3. A method as claimed in claim 1, in which the step of etching the second sacrificial layer includes the step of etching a deposition zone for a nozzle that projects from each roof wall and defines the ink ejection ports, the step of depositing the structural material layer being carried out to define sidewalls of the nozzles and to close the nozzles.

4. A method as claimed in claim 3, in which includes the step of planarizing the structural material layer to open the nozzles, thereby defining the ink ejection ports.

5. A method as claimed in claim 1, in which the step of etching the second sacrificial layer and depositing the structural layer is carried out such that the nozzle chamber walls and the roof walls define nozzle chambers in which respective actuators are positioned.

6. A method as claimed in claim 5, which includes the steps of depositing an ink passivation layer on the drive circuitry layers and etching the passivation layer to define vias for the heating circuits.